

ISO 9001 REGISTRATION PROJECT

Statement of Work for System Level Procedures (SLP) Development Teams

June 25, 1997
(revision 9/4/97)

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1. PURPOSE

This Statement of Work defines the roles and responsibilities, requirements, deliverables and schedule for teams established to develop System Level Procedures (SLPs) to implement ISO 9001 at the GSFC. To meet the Project master schedule requirements, final drafts of the SLPs for Center Director signature are required no later than close of business on October 31, 1997.

2. ROLES AND RESPONSIBILITIES

Table 1 identifies by name the individuals nominated by their management for the roles described below.

2.1 Quality Management System Council (QMSC) Sponsor

The QMSC Sponsor is the QMSC member who is responsible for SLP development. The SLP Development Teams are established to support the QMSC Customer and a Team Leader is appointed to organize and manage the team efforts and report progress and status to the QMSC Sponsor.

QMSC Sponsors will report on SLP development status, progress, and issues at the QMSC meetings and are responsible for raising management concerns to the Project in a timely manner.

2.2 Team Leader

The SLP Development Team Leader is responsible for fulfilling the requirements of this SOW and providing associated deliverables to the QMSC through their QMSC Sponsor. In that capacity, he/she is responsible for establishing team work schedules, meetings, individual assignments, resource requirements, etc., to fulfill obligations in a timely manner. The Team Leader is obligated to keep all assigned team members involved in meetings/discussions to the extent that individual schedules allow. The Team Leader shall seek clarification, guidance, or issue resolution as needed from the QMSC Sponsor or Project management.

2.3 Team Members

SLP Development Team members will participate in SLP development process and will comply with team assignments and schedules as they are established by the Team Leader.

3. REQUIREMENTS AND DELIVERABLES

3.1 General

3.1.1 All team civil service labor expended on this effort shall be charged to UPN 010011001. No funding for contractor support of this SOW will be provided by the Project.

3.1.2 Each team shall develop System Level Procedure(s) addressing the assigned subset of ISO 9001 requirements identified for the Team in Table 1. Each SLP shall take into account the following scope of ISO 9001 as it applies to the GSFC Greenbelt and the WFF facilities:

The Quality Management System (QMS) applies to all organizational elements whose responsibilities affect the quality of GSFC products. Center products covered by the QMS include: spacecraft, space flight instruments, and ground support and mission operation elements that directly interact with them; Center-authorized studies; balloon, sounding rocket and aircraft experiments. Products include such deliverable items as hardware, software, documentation, and services. Scientific research, analysis, and algorithm development is excluded.

For processes applicable to software products, the Development Team shall also be guided by ISO 9000-3, Guidelines for the Application of ISO 9001 to the Development, Supply and Maintenance of Software.

3.1.3 The number of procedures developed to address the Team's assigned topics (designated in table 1) is left to the discretion of the Team Leader. However, the following general SLP guidelines shall be followed:

- SLPs shall comply with the content requirements for Tier 2 documents described in the latest version of SLP 05.1, Document Control. SLP 05.1 can be viewed or downloaded from the Code 300 home page at http://arioch.gsfc.nasa.gov/iso9000/docs/4_5.htm.
- The Team Leader will provide drafts on paper and on disk in an MS Word file format. The Project will provide guidance regarding editorial format.
- Short SLPs (generally 10 pages or less, including flowcharts, forms, etc.) are preferred. Processes which require lengthy documentation should be broken down into logical components if possible and placed in separate SLPs.

3.1.4 All team leaders shall complete formal ISO 9001 training, provided through the Employee and Organizational Development Office, Code 114. The required training consists of the following:

- “Introduction to ISO 9000 Quality Assurance Systems” (this may be waived for personnel who have completed ISO 9000 Lead Assessor training)
- “ISO Quality System Documentation”

It is strongly advised that team members complete the above training.

3.2 SLP Development Folder

Each Team Leader shall deliver to the QMSC Sponsor a Development Folder for each SLP. The Development Folder will contain the following information and items:

3.2.1 SLP number and title

3.2.2 Identification (name and organization code) of the Team Leader, QMSC Sponsor, Team Members, and other Center personnel consulted during SLP development. The Team Leader’s and team members’ planned labor hours (by month) expended on team activities through task completion. The manpower budget estimates will be provided with the initial status report (see SOW Section 3.3).

3.2.3 Identification of the requirements which the SLP implements.

In addition to ISO 9001 element, sub-element, or sub-paragraph requirements associated with the table 1 SLP topic, the folder shall identify any other ISO 9001 requirements which affected development of the SLP. Additionally, any non-ISO 9001 requirements (such as procurement regulations and safety requirements) which influenced SLP development shall be identified.

3.2.4 Existing documentation and procedures.

The folder shall identify by document number, revision, and title, any previously existing GSFC documentation, such as GMIs, Handbooks, procedures, project plans, etc., that address in whole or in part the implementation of pertinent ISO 9001 requirement. The folder shall indicate whether the proposed SLP is intended to replace, partially replace, or not affect such existing documentation.

3.2.5 Discussion Papers

The folder shall contain any discussion papers prepared by the team prior to drafting the SLP. These discussion papers will be submitted to the QMSC Sponsor in advance of drafting the SLP flowcharts (see SOW Section 3.4) and shall identify:

- Recommended approaches to requirements implementation.
- Alternative approaches that were considered, their pros and cons, and reason(s) for their removal from consideration.
- The recommended approach's expected positive or negative affects on the Center and any issues concerned with the commitment or realignment of Center resources, including personnel, facilities, funding, additional responsibilities, capital equipment.
- The paper will address concerns regarding the affect of the recommended approach on ISO 9001 Registration Project schedules.

3.2.6 The Team's SLP development schedule showing planned and actual milestone achievement dates (reference SOW section 3.4).

3.2.7 A paper copy and an MS Word file copy of the final draft SLP(s).

3.3 Reporting

The Team Leader shall provide biweekly written status reports to the QMSC Sponsor and a copy to the Project Manager.

The first report shall contain a schedule of planned dates (see SOW section 3.4), team member training status, and civil service labor estimates as a minimum and is due by close of business on Monday, July 14, 1997.

Each report shall identify accomplishments during the reporting period, updated ISO training status of team members, issues being addressed or which require participation or resolution by the QMSC Sponsor or Project, and schedule status.

3.4 Schedule

Draft SLP(s), which are suitable for Center review, are due to the associated QMSC Sponsor no later than close of business on September 25, 1997.. For each SLP being developed, the Team Leader shall provide a development schedule or milestone chart to the QMSC Sponsor with the first status report (reference SOW section 3.3), with schedule/milestone progress updates in each subsequent status report. Each schedule will identify and track the progress of

the following activities and actions as a minimum. Those schedule activities requiring action by the QMSC and Project will be inserted in the team schedule as fixed items with time to accomplish as noted below.

- Determination of SLP requirements
- Review of existing documentation and procedures
- Prepare of required discussion papers
- QMSC review and comment of discussion papers (1 week)
- Disposition comments and prepare final draft of discussion papers
- Project review of discussion papers (1 week)
- Develop process flowchart(s)
- QMSC review (1 week)
- Prepare draft SLP
- QMSC review (1 week)
- Disposition QMSC comments and prepare final draft (September 25, 1997)
- Submit to Project for Directives Clearance (4 weeks)
- Disposition Center comments and prepare final draft
- Development folder delivered to QMSC Sponsor (October 31, 1997)

TABLE 1 SLP Development Team Personnel and Responsibilities (Version 9/4/97)

| ELEMENT | SLP NO. | TITLE | LEADER | QMSC SPONSOR | SUPPORT TEAM |
|---------|---------|--|--------------------|--|--|
| 4.1 | 01.1 | Management Responsibility | 300/Dave Cleveland | 100/Art Fuchs | N/A (Final Draft Complete) |
| 4.2 | 02.1 | Quality Planning | 310/Jack Shaw | 300/Dave Cleveland | 200/Tom Weisz 410/Jim Barrowman 510.1/Ludie Kidd 738/Bob Kasa 821/Gerry Morris 915/Jack Richards |
| 4.3 | 03.1 | Customer Agreements | 401/John Oberright | STAAC/Orlando Figueroa or his designee | 234/Mike Taylor 303/Ted Hammer 501/Kevin McCarthy 682/Brian Dennis 713/Steve Castles 802/Ray Stanley 915/Jack Richards |
| 4.4 | 04.1 | Design Planning and Interface Management | 738/Bob Kasa | 700/Mitch Brown | 239/Lyle Paulson 303/Mike Delmont 442/Carolyn Krebs 550/Rose Pajerski 695/Jeff Houser 822/Dean Price 823/Prasad Hanagud 933/Harold Maurer |
| | 04.2 | Design Development | 704/Jim Gatlin | 700/Brown | 239/Lyle Paulson 303/Mike Delmont 424/Peg Luce 550/Rose Pajerski 695/Jeff Houser 822/Dean Price 823/Prasad Hanagud 924/Jim Marsh |

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| ELEMENT | SLP NO. | TITLE | LEADER | QMSC SPONSOR | SUPPORT TEAM |
|-----------|---------|------------------------------------|-------------------|---------------|---|
| 4.4 cont. | 04.3 | Design Verification and Validation | 740/Peter Rossoni | 700/Brown | 234/Rob Dipalo 303/Roger Counts 424/Peg Luce 510.1/Ludie Kidd 691/Sam Floyd 822/Dean Price 823/Prasad Hanagud 924/Jim Marsh |
| | 04.4 | Design Review | 722/Jim Ryan | 700/Brown | 234/Rob Dipalo 300/Charlie Vanek 424/Peg Luce 510.1/Ludie Kidd 691/Sam Floyd 822/Dean Price 823/Prasad Hanagud 933/Harold Maurer |
| 4.5 | 05.1 | Document Control | 300/Mitchell | 300/Cleveland | N/A (Final Draft Complete) |
| 4.6 | 06.1 | Procurement Procedures | 214/Pat Logan | 230/Tom White | 239/Gerry Lempka 303/Mary Albritton-Endres 424/Peg Luce 510/Den Giblin 695/Ev Worley 738/Bob Kasa 822/Barton Bull |
| | 06.2 | Supplier Evaluation System | 214/Pat Logan | 230/White | 239/Gerry Lempka 303/Jack Ellis 441/Dave Douds 510.1/Ludie Kidd 695/Ev Worley 704/Jim Gatlin 822/Barton Bull 915/Jack Richards |

| ELEMENT | SLP NO. | TITLE | LEADER | QMSC SPONSOR | SUPPORT TEAM |
|-------------|---------|---|------------------|---------------|--|
| 4.6 (cont.) | 06.3 | Verification of Supplier Product | 214/Pat Logan | 230/White | 239/Rich Williams 303/Mary Albritton-Endres 441/Dave Douds 530/Curtis Emerson 683/Leslie Payne 752/Lyle Knight 822/Barton Bull |
| 4.7 | 07.1 | Control of Customer-Supplied Product | 303/Ron Kolecki | 300/Cleveland | 235/Mike Showers 470/Bob Bridgers 535/Sandra Harris 661/Bernie Fridovich 718/Avery Miles 822/Norman Schultz |
| 4.8 | 08.1 | Identification and Traceability of Products | 303/Boyd Pearson | 300/Mitchell | 239/Pat Gilbertson 470/Bob Bridgers 535/Sandra Harris 683/Patrick Haas 713/Steve Castles 822/Norman Schultz 933/Harold Maurer |
| 4.9 | 09.1 | Process Control | 752/Lyle Knight | 700/Brown | 235/Glenn Harris 303/Mike Kelly 442/Carolyn Krebs 550/Rose Pajerski 683/Joe Novello 823/Chuck Brodell |
| 4.10 | 10.1 | Incoming Inspection | 303/Roger Counts | 300/Mitchell | 235/Larry Parsons 442/Carolyn Krebs 533/Ray Heming 693/Dave Walser 723/Israel Moya 822/Greg Smith 924/Jim Marsh |

| ELEMENT | SLP NO. | TITLE | LEADER | QMSC SPONSOR | SUPPORT TEAM |
|--------------|---------|--|---------------------------|--------------|---|
| 4.10 (cont.) | 10.2 | In-Process Inspections | 303/David Cissell | 300/Mitchell | 235/Larry Parsons 410/Jim Barrowman 510/Quinton Barker 692/Jim Lobell 752/Lyle Knight 823/Jan Neville 970.2/Tom Riley |
| | 10.3 | Final Inspections | 303/Rob Sticka | 300/Mitchell | 235/Larry Parsons 410/Jim Barrowman 510/Quinton Barker 693/Dave Walser 313(700)/Mike Viens 823/Jan Neville 970.2/Mary Cleave |
| 4.11 | 11.1 | Calibration and Metrology | 300/Cleveland | 100/Fuchs | N/A (Final Draft Complete) |
| 4.12 | 12.1 | Inspection and Test Status | 303/Mary Albritton-Endres | 300/Mitchell | 239/Rich Williams 421/Jonathan Bryson 533/Ray Heming 663/Larry Ryan 713/Steve Castles 822/Greg Smith 933/Harold Maurer |
| 4.13 | 13.1 | Documentation, Control, and Disposition of Nonconforming Product | 303/Esmond Marvray | 300/Mitchell | 235/Bob Clark 422/John Pandelides 533/Al Wilhite 692/Jim Lobell 740/Peter Rossoni 823/David Kotsifakis 970.2/Elaine Firestone (GSC) |

| ELEMENT | SLP NO. | TITLE | LEADER | QMSC SPONSOR | SUPPORT TEAM |
|--------------|---------|---|-------------------|---------------|--|
| 4.13 (cont.) | 13.3 | Alert Reporting of Parts and Materials Problems | 303/Rick Claffy | 300/Mitchell | 235/Bob Clark 422/John Pandelides 533/Al Wilhite 663/Jeff DuMonthier 740/Peter Rossoni 821/Gerry Morris |
| 4.14 | 14.1 | Corrective and Preventive Action | 303/Dick Koehler | 300/Cleveland | 239/Dave Maxwell 422/John Pandelides 441/Dave Douds 530/Curtis Emerson 531.1/Ricardo Benn 663/Bob Baker 738/Bob Kasa 822/Chuck Williams |
| 4.15 | 15.1 | Lifting and Handling Devices | 750/Stanley Chan | 700/Brown | 239/Claude Watts 303/Lon Griner 470/Bob Bridgers 510/Quinton Barker 661/Steve Derdeyn 823/Tripp Ransone |
| | 15.2 | Storage of Product at the GSFC | 230/Dale Hupp | 230/White | 303/Brenda Parkinson 480/Kevin Miller 533/Marilyn Goodall 663/George Winkert 752/Lyle Knight 823/Chris Shreves |
| | 15.3 | Packaging, Marking, and Preservation of GSFC Products | 234/J.R. Hedgpeth | 230/White | 303/Lon Griner 480/Kevin Miller 533/Marilyn Goodall 663/Curtis Odell 752/Lyle Knight 823/Chris Shreves |

| ELEMENT | SLP NO. | TITLE | LEADER | QMSC SPONSOR | SUPPORT TEAM |
|--------------|---------|---|-------------------|---------------|---|
| 4.15 (cont.) | 15.4 | Transportation of GSFC Product | 234/J.R. Hedgpeth | 230/White | 303/Ron Perison 480/Kevin Miller 533/Marilyn Goodall 682/Chuck Condor 722/Kenny Harris 823/Chris Shreves |
| 4.16 | 16.1 | Control of Quality Records | 303/Ted Ackerson | 300/Cleveland | 239/Beth Booker 470/Bob Bridgers 532.2/B.J. Hayden 693/Dave Walser 713/Steve Castles 821/Gerry Morris 970.2/Elaine Firestone (GSC) |
| 4.17 | 17.1 | Internal Audit System | 300/Mitchell | 300/Cleveland | N/A (Final Draft Completed) |
| 4.18 | 18.1 | Identification of Training Requirements and Personnel Qualification | 303/Patty Huber | 300/Cleveland | 110/Don Wolford 239/David Maxwell 421/Jonathan Bryson 510.1/Madeline Butler 660/Don Stillwell 738/Bob Kasa 822/Alan Selser 970.2/Tom Riley |
| 4.19 | N/A | Servicing | N/A | N/A | N/A |
| 4.20 | 20.1 | Identification and Application of Statistical Techniques | 303/Ted Hammer | 300/Mitchell | 230/Tom Weisz 442/Carolyn Krebs 504/John Woodruff 660/Don Stillwell 704/Jim Gatlin 822/Jay Pittman 970.2/Tom Riley |